WHAT IS CLAIMED IS:

1. A method of composing an image from a plurality of images, comprising:

5   inputting a plurality of the images containing the same objects;

         determining a relative position between two of the images based upon a predetermined set of movements;

         determining at least one common in-focus area between the two images;

         determining an amount of difference in focus in the one common in-focus area

10   between the two images; and

         composing an image from the two inputted images based upon the above determined amount of the difference in focus.

2. The method of composing an image according to claim 1 wherein the in-focus area

15   determination further comprises:

         dividing each of the inputted images into a predetermined number of blocks;

         summing pixel values of each of the blocks for each of the inputted images;

         determining a difference in the summed pixel values between a corresponding pair of the blocks of the inputted images; and

20   selecting a block having a largest amount of the difference in the summed pixel values as the common in-focus area.

3. The method of composing an image according to claim 2 wherein the common in-focus area is user-adjustable.

25

4. The method of composing an image according to claim 1 wherein the focus difference determination further comprising:

         iteratively low-pass filtering the common in-focus area of one of the inputted images;

30   determining whether or not the low-pass filtered common in-focus area

15

substantially matches the common in-focus area of another inputted images; and

     determining the amount of the focus difference in the one common in-focus area between the two images based upon a number of the iterative low-pass filtering.

5   5. The method of composing an image according to claim 4 wherein the amount of the focus difference is user-adjustable.

6. The method of composing an image according to claim 4 wherein the amount of the focus difference is expressed in a blurring function.

7. A system for composing an image from a plurality of images, comprising:

     an input unit for inputting a plurality of the images containing the same objects; and

     a processing unit connected to said input unit for determining a relative position

15   between two of the images based upon a predetermined set of movements, said processing unit determining at least one common in-focus area between the two images, said processing unit determining an amount of difference in focus in the one common in-focus area between the two images, said processing unit composing an image from the two inputted images based upon the above determined amount of the difference in focus.

20

8. The system for composing an image according to claim 7 wherein said processing unit divides each of the inputted images into a predetermined number of blocks, said processing unit summing pixel values of each of the blocks for each of the inputted images, said processing unit determining a difference in the summed pixel values between

25   a corresponding pair of the blocks of the inputted images, said processing unit selecting a block having a largest amount of the difference in the summed pixel values as the common in-focus area.

9. The system for composing an image according to claim 8 wherein the common in-

30   focus area is user-adjustable.

10. The system for composing an image according to claim 7 wherein said processing

unit iteratively applies a low-pass filter to the common in-focus area of one of the inputted

images, said processing unit determining whether or not the low-pass filtered common in-

5   focus area substantially matches the common in-focus area of another inputted images,

said processing unit determining the amount of the focus difference in the one common

in-focus area between the two images based upon a number of the iterative low-pass

filtering.

10   11. The system for composing an image according to claim 10 wherein the amount of the

focus difference is user-adjustable.

12. The system for composing an image according to claim 10 wherein the amount of the

focus difference is expressed in a blurring function.

15

13. A computer program containing instructions for performing acts of composing an

image from a plurality of images, the acts comprising:

        inputting a plurality of the images containing the same objects;

        determining a relative position between two of the images;

20   determining at least one common in-focus area between the two images based

upon a predetermined set of movements;

        determining an amount of difference in focus in the one common in-focus area

between the two images; and

        composing an image from the two inputted images based upon the above

25   determined amount of the difference in focus.

14. The computer program according to claim 13 wherein the in-focus area determination

further comprises:

        dividing each of the inputted images into a predetermined number of blocks;

30   summing pixel values of each of the blocks for each of the inputted images;

17

determining a difference in the summed pixel values between a corresponding pair of the blocks of the inputted images; and

selecting a block having a largest amount of the difference in the summed pixel values as the common in-focus area.

15. The computer program according to claim 14 wherein the common in-focus area is user-adjustable.

16. The computer program according to claim 13 wherein the focus difference determination further comprising:

iteratively low-pass filtering the common in-focus area of one of the inputted images;

determining whether or not the low-pass filtered common in-focus area substantially matches the common in-focus area of another inputted images; and

determining the amount of the focus difference in the one common in-focus area between the two images based upon a number of the iterative low-pass filtering.

17. A method of composing an image from a plurality of images, comprising:

inputting a plurality of the images containing the same objects;

determining a relative position between two of the images;

determining at least one common in-focus area between the two images;

dividing each of the inputted images into a predetermined number of blocks;

summing pixel values of each of the blocks for each of the inputted images;

determining a difference in the summed pixel values between a corresponding pair of the blocks of the inputted images;

selecting a block having a largest amount of the difference in the summed pixel values as the common in-focus area;

determining an amount of difference in focus in the one common in-focus area between the two images; and

composing an image from the two inputted images based upon the above

determined amount of the difference in focus.

18. The method of composing an image according to claim 17 wherein the common in-focus area is user-adjustable.

19. The method of composing an image according to claim 17 wherein the focus difference determination further comprising:

iteratively low-pass filtering the common in-focus area of one of the inputted images;

determining whether or not the low-pass filtered common in-focus area substantially matches the common in-focus area of another inputted images; and

determining the amount of the focus difference in the one common in-focus area between the two images based upon a number of the iterative low-pass filtering.

20. The method of composing an image according to claim 19 wherein the amount of the focus difference is user-adjustable.

21. The method of composing an image according to claim 19 wherein the amount of the focus difference is expressed in a blurring function.

22. A system for composing an image from a plurality of images, comprising:

an input unit for inputting a plurality of the images containing the same objects; and

a processing unit connected to said input unit for determining a relative position between two of the images, said processing unit determining at least one common in-focus area between the two images, said processing unit dividing each of the inputted images into a predetermined number of blocks, said processing unit summing pixel values of each of the blocks for each of the inputted images, said processing unit determining a difference in the summed pixel values between a corresponding pair of the blocks of the inputted images, said processing unit selecting a block having a largest amount of the

difference in the summed pixel values as the one common in-focus area, said processing unit determining an amount of difference in focus in the one common in-focus area between the two images, said processing unit composing an image from the two inputted images based upon the above determined amount of the difference in focus.

5

23. The system for composing an image according to claim 22 wherein the common in-focus area is user-adjustable.

24. The system for composing an image according to claim 23 wherein said

10 processing unit iteratively applies a low-pass filter to the common in-focus area of one of the inputted images, said processing unit determining whether or not the low-pass filtered common in-focus area substantially matches the common in-focus area of another inputted images, said processing unit determining the amount of the focus difference in the one common in-focus area between the two images based upon a number of the

15 iterative low-pass filtering.

25. The system for composing an image according to claim 24 wherein the amount of the focus difference is user-adjustable.

20 26. The system for composing an image according to claim 24 wherein the amount of the focus difference is expressed in a blurring function.

27. A computer program containing instructions for performing acts of composing an image from a plurality of images, the acts comprising:

25 _____ inputting a plurality of the images containing the same objects;
_____ determining a relative position between two of the images;
_____ determining at least one common in-focus area between the two images;
_____ dividing each of the inputted images into a predetermined number of blocks;
_____ summing pixel values of each of the blocks for each of the inputted images;

30 _____ determining a difference in the summed pixel values between a corresponding pair

of the blocks of the inputted images;

selecting a block having a largest amount of the difference in the summed pixel values as the common in-focus area;

determining an amount of difference in focus in the one common in-focus area between the two images; and

composing an image from the two inputted images based upon the above determined amount of the difference in focus.

28. The computer program according to claim 27 wherein the common in-focus area is user-adjustable.

29. The computer program according to claim 27 wherein the focus difference determination further comprising:

iteratively low-pass filtering the common in-focus area of one of the inputted images;

determining whether or not the low-pass filtered common in-focus area substantially matches the common in-focus area of another inputted images; and

determining the amount of the focus difference in the one common in-focus area between the two images based upon a number of the iterative low-pass filtering.